

CLAIMS

1. A recording paper comprising a paper support  
and a recording layer formed on the paper support, the  
5 paper support having a security element embedded therein,  
the security element being a thread-shaped security  
element or a ribbon-shaped security element, and the  
paper support having a thickness at least 3 times the  
diameter of the thread-shaped security element or at  
10 least 3 times the thickness of the ribbon-shaped security  
element.

2. The recording paper according to claim 1, in  
which the paper support has a thickness of 40 to 250  $\mu\text{m}$ .

3. The recording paper according to claim 1, in  
15 which the security element is a thread composed of  
natural fibers or synthetic fibers.

4. The recording paper according to claim 1, in  
which the security element is a dyed thread, a thread  
having a vapor deposited metal layer or a thread combined  
20 with a metal foil.

5. The recording paper according to claim 1, in  
which the security element is a thread-shaped security  
element having a diameter of about 10  $\mu\text{m}$  to about 80  $\mu\text{m}$ .

6. The recording paper according to claim 1, in  
25 which the security element comprises a synthetic resin

film and is a ribbon-shaped security element having a color different from that of the paper support.

7. The recording paper according to claim 1, in which the security element is a ribbon-shaped security  
5 element comprising a synthetic resin film provided with a vapor deposited metal layer on at least one side thereof, the paper support having a thickness of at least 3 times the total thickness of the vapor deposited metal layer and the synthetic resin film.

10 8. The recording paper according to claim 7, in which the vapor deposited metal layer is made of aluminum, copper, nickel, tin or zinc.

9. The recording paper according to claim 1, in which the security element is a ribbon-shaped security  
15 element comprising a synthetic resin film or a metallized synthetic resin film, the ribbon-shaped security element having a width of about 0.3 mm to about 20 mm and a thickness of about 10  $\mu$ m to about 80  $\mu$ m.

10. The recording paper according to claim 1,  
20 in which the security element has an adhesive layer comprising an adhesive as a main component on at least part of its surface.

11. The recording paper according to claim 10,  
in which the adhesive layer adheres to the paper support  
25 by contact of the adhesive layer and water when the

0500579-071001

security element having the adhesive layer is embedded within the paper support during paper making, or by the heat applied when the paper is dried after production, or by the pressure applied during supercalendering.

- 5           12. The recording paper according to claim 10, in which the adhesive is a polyester resin-based adhesive, a urethane resin-based adhesive, an acrylic resin-based adhesive or a vinyl acetate resin-based adhesive.

- 10           13. The recording paper according to claim 10, in which the adhesive layer further comprises at least one member selected from the group consisting of a fluorescent dye, a fluorescent pigment and a luminescent pigment.

- 15           14. The recording paper according to claim 10, in which the adhesive layer is prepared by uniformly dispersing an adhesive, and if desired at least one member selected from the group consisting of a fluorescent dye, a fluorescent pigment and a luminescent pigment, in water or an organic solvent serving as a  
20 medium to obtain a coating composition for forming an adhesive layer, applying the resulting coating composition for forming an adhesive layer to the thread-shaped security element or ribbon-shaped security element in an amount of about 1 g/m<sup>2</sup> to about 10 g/m<sup>2</sup> on a dry  
25 weight basis, and drying the resulting coating.

09500979-071001

15. The recording paper according to claim 1,  
in which the recording layer is a heat-sensitive  
recording layer comprising an electron-donating compound,  
electron-accepting compound and a binder.

5           16. The recording paper according to claim 15,  
in which a protective layer containing a binder having a  
film forming ability is formed on the heat-sensitive  
recording layer.

10           17. The recording paper according to claim 1,  
in which the recording layer is a transfer receiving  
layer for thermal fusion transfer recording or  
sublimation transfer recording.

15           18. The recording paper according to claim 1,  
in which the recording layer is an ink-receiving layer  
for ink-jet recording.

19. The recording paper according to claim 1,  
wherein an intermediate layer containing a pigment or  
hollow organic particles is provided between the paper  
support and the recording layer.

20           20. A paper support for a recording paper, the  
paper support having a security element embedded therein,  
the security element being a thread-shaped security  
element or a ribbon-shaped security element, and the  
paper support having a thickness of at least 3 times the  
25   diameter of the thread-shaped security element or at

05900979-071001

least 3 times the thickness of the ribbon-shaped security element.

21. The paper support according to claim 20, which has a thickness of 40 to 250  $\mu\text{m}$ .

5 22. The paper support according to claim 20, in which the security element is a thread composed of natural fibers or synthetic fibers.

23. The paper support according to claim 20, in which the security element is a dyed thread, a thread  
10 having a vapor deposited metal layer or a thread combined with a metal foil.

24. The paper support according to claim 20, in which the security element is a thread-shaped security element having a diameter of about 10  $\mu\text{m}$  to about 80  $\mu\text{m}$ .

15 25. The paper support according to claim 20, in which the security element comprises a synthetic resin film and is a ribbon-shaped security element having a color different from that of the paper support.

26. The paper support according to claim 20, in  
20 which the security element is a ribbon-shaped security element comprising a synthetic resin film provided with a vapor deposited metal layer on at least one side thereof, the paper support having a thickness of at least 3 times the total thickness of the vapor deposited metal layer  
25 and the synthetic resin film.

090099.01001  
T00T20 62600660

27. The paper support according to claim 26, in which the vapor deposited metal layer is made of aluminum, copper, nickel, tin or zinc.

28. The paper support according to claim 20, in which the security element is a ribbon-shaped security element comprising a synthetic resin film or metallized synthetic resin film, the ribbon-shaped security element having a width of about 0.3 mm to about 20 mm and a thickness of about 10  $\mu$ m to about 80  $\mu$ m.

29. The paper support according to claim 20, in which the security element has an adhesive layer comprising an adhesive as a main component on at least part of its surface.

30. The paper support according to claim 29, in which the adhesive layer adheres to the paper support by contact of the security element having the adhesive layer and water when the security element having the adhesive layer is embedded within the paper support, by the heat applied when the paper is dried after production, or by the pressure applied during supercalendering.

31. The paper support according to claim 29, in which the adhesive is a polyester resin-based adhesive, a urethane resin-based adhesive, an acrylic resin-based adhesive or a vinyl acetate resin-based adhesive.

32. The paper support according to claim 29, in which the adhesive layer further comprises at least one member selected from the group consisting of a fluorescent dye, a fluorescent pigment and a luminescent pigment.

33. The paper support according to claim 29, in which the adhesive layer is prepared by uniformly dispersing an adhesive, and if desired at least one member selected from the group consisting of a fluorescent dye, a fluorescent pigment and a luminescent pigment, in water or an organic solvent serving as a medium to obtain a coating composition for forming an adhesive layer, applying the resulting coating composition for forming an adhesive layer to the thread-shaped security element or ribbon-shaped security element in an amount of about 1 g/m<sup>2</sup> to about 10 g/m<sup>2</sup> on a dry weight basis, and drying the resulting coating.

0900079.071004  
1000720.62600660